

## CASE REPORTS

# Adenocarcinoma of Duodenum - Case Report

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## Abstract

We present the case of a 45 years old man who was admitted with epigastric pain, asthenia, nausea and weight loss. The endoscopic exam revealed a duodenal tumoral mass and the following biopsy revealed adenocarcinoma. Ultrasonography identified liver metastases which made the surgical intervention impossible. The patient followed chemiotherapeutic treatment.

**Keywords:** upper gastrointestinal endoscopy, endoscopic biopsy, duodenal carcinoma.

## Rezumat

Prezentăm cazul unui pacient, de sex masculin, în vârstă de 45 de ani internat în spital pentru dureri epigastrice, astenie fizică, vărsături și scădere ponderală marcată. Endoscopia a evidențiat tumoră duodenală, iar examenul biptic prezenta adenocarcinomul. Ecografia abdominală a descris prezența metastazelor hepatice. Intervenția chirurgicală nu a fost posibilă, datorită metastazelor hepatice multiple, iar pacientul a urmat tratament chimioterapeutic.

**Cuvinte cheie:** endoscopia digestiva superioara, biopsia endoscopică, carcinom duodenal.

## BACKGROUND

Primary duodenal carcinoma represent 35-45% of all tumors in the small bowel but he has a small share in all gastro-intestinal tumors (0.35%)<sup>1,2</sup>. The most frequent type of tumor in the duodenum is the adenocarcinoma, but can observed other types of tumours such as lymphomas, carcinoid tumors, gastrinomas, leiomyosarcomas and stromal tumors<sup>3</sup>. The localization of the primary duodenal adenocarcinomas is in the first and second level of the duodenum, and 20% and 10% remain in the next two levels.

Early detection of the carcinoma has low frequency. Patients with Gardner syndrome or family history of polyposis may have a higher risk of developing duodenal cancer. Patients who have duodenal polyps also have an increased risk, regardless of family history<sup>5</sup>.

Clinical picture of patients with early duodenal cancer consist of epigastric pain, vomiting, nausea, weight

loss and upper gastrointestinal bleeding. At first presentation many patients with duodenal cancer had lesions, frequently in an advanced stage. The metastasis appear in liver, lymph nodes and lungs.

The duodenal carcinoma was diagnosed by upper gastrointestinal endoscopy and was confirmed by histological examination. Barium examination show an irregular structure of the duodenum in most cases.

EUS determine the size and depth of infiltration and also assesses regional lymph nodes. The ultrasonography can diagnose and assess the vascularity of larger lesions, but the smaller tumours (<2 cm) may not be detected. The imagistic methods, the tomography and magnetic resonance (CT, MRI), showed the tumor invasion and localization.

The complex treatment of cancer involves specific therapeutic measures. These must be taken in order to increase the resistance of the organism to the malign

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injury. The nutritional therapy prepares the body's resistance before starting oncologic treatment and maintains the necessary nutrition to prolong the patients survival<sup>21,22</sup>.

Surgery remains the only potential cure for this type of tumour<sup>11</sup>. Radical pancreatico-duodenectomy is the classical curative operation for tumours in the first and second part of the duodenum. In the tumours of distal duodenum, segmental resection may be adequate. The role of chemotherapy in this disease remains undefined. The combination of chemotherapy with 5-FU and a platinum +/- docetaxel may be recommended for the treatment of patients with advanced stage of duodenal cancer<sup>16,19</sup>.

### CASE REPORT

A 45-year old patient presented with upper abdominal pain, predominant epigastric, nausea, vomiting and weight loss (more than 6 kg in one month). He began to feel constant epigastric pain two weeks before admission. His medical history indicated a splenectomy performed after a traumatism. He was an alcohol and tobacco user (40-60 cigarettes/day).

Physical examination revealed conjunctival pallor and an significantly subponderal patient. Lung and of the heart auscultation revealed no abnormalities. The abdomen revealed postoperator cicatrice and abdominal pain with no organomegaly. The blood pressure was 135/70 mmHg, the pulse rate was 84/min and regular, the respiration rate was 16/min and the body temperature was 36.5 Celsius grade.

**Laboratory findings** revealed mild anemia Hb 10,2 g% with low MCV, MCHC, mild iron deficiency, platelets count 207000/mm<sup>3</sup>, white cell count 8700/mm<sup>3</sup>, VSH 35/58 mmHg, increased transaminases ALT 78

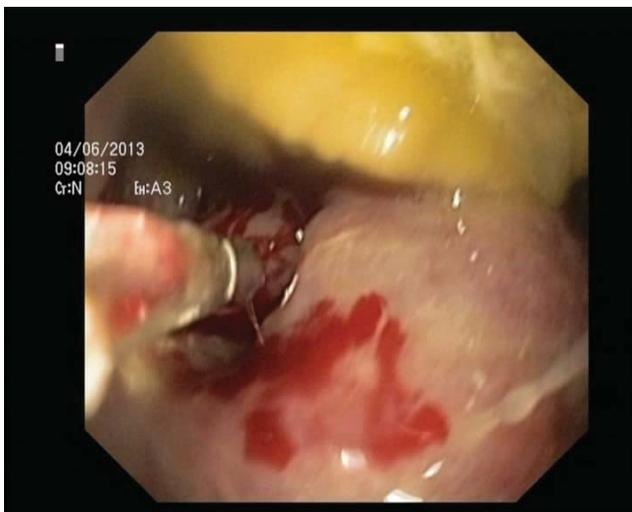


Figure 1. Endoscopy - tumour of the duodenum.

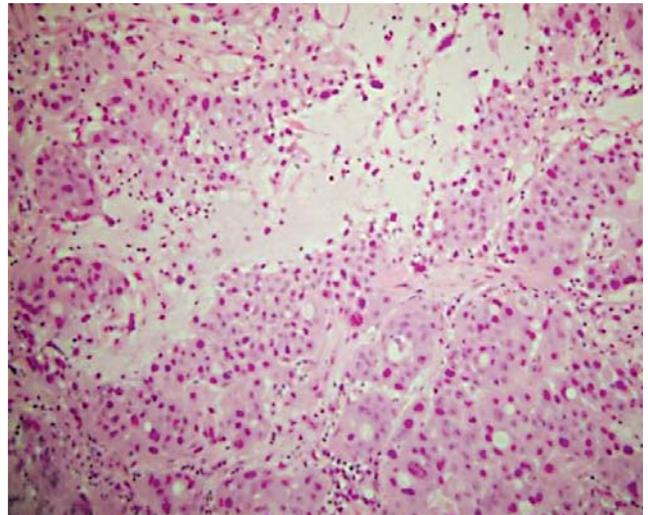


Figure 2. Histopathologically - adenocarcinoma of the duodenum.



Figure 3. Abdominal ultrasound - multiple hepatic metastasis in left lobe.



Figure 4. Abdominal ultrasound - multiple hepatic metastasis in right lobe.

UII, ASTT 68 U/L and absence of viral hepatitis. The bilirubin, serum electrophoresis, alpha-fetoprotein and



**Figure 5.** Abdominal ultrasound - multiple hepatic metastasis.

CA 19-9 had normal values. The level of carcinoembryonic antigen (CEA) was markedly elevated.

X-ray exam of the abdomen showed no significant changes. Upper endoscopy revealed a duodenal tumour (Figure 1). A microscopic examination showed that the tumor contained neoplastic cells, growing in a tubular pattern, particularly in its peripheral regions. The diagnosis of patient was primary duodenal adenocarcinoma (Figure 2). Abdominal ultrasound showed multiple hepatic metastasis (isoechoic tumors with periferic halou). Both kidneys were positioned normally and of

normal size. The pancreas, the bile ducts, portal vein and splenic vein were normal. No free fluid was found in the peritoneum (Figure 3, 4, 5). Tomography helped us in the diagnosis, revealing the duodenal tumor and a narrowing of the lumen and confirmed the hepatic metastases. The differential was with gastric cancer, pancreatic neoplasm and multicentre hepatocellular carcinoma, diagnosis with were crossed out after our investigations. Having confirmed the hepatic metastases, the patient could not be sent to surgery so we sent him to oncology where he followed chemioteraphic treatment. Although he was seemingly responsive to treatment he died 9 months after admission to oncology and 2 months after stopping treatment.

## CONCLUSIONS

Duodenal carcinoids are rare, usually associated with a slow progression, but can sometimes present a quick evolution. The duodenoscopy, the computerized tomography and biopsy should be performed to evaluate the tumor size, the level of wall invasion and the presence of regional or distant lymphatic metastases.

### Contribution note

All authors have contributed equally to this study.

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